

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

DUBUC, J.
Goudreau Gage Dubuc
Stock Exchange Tower
Suite 3400, 800 Place Victoria
Montreal, Quebec H4Z 1E9
CANADA

**REÇU
RECEIVED**

31 DEC. 2004

GODFREY GAGE DUBUC
3400 TOUR DE LA BOURSE
C.P. 242 PLACE VICTORIA
MONTREAL QUEBEC H4Z 1E9

PCT

WRITTEN OPINION OF THE
INTERNATIONAL PRELIMINARY
EXAMINING AUTHORITY

(PCT Rule 66)

Date of mailing
(day/month/year)

23.12.2004

Applicant's or agent's file reference
ES/13370.23

REPLY DUE

within 2 month(s)
from the above date of mailing

International application No.
PCT/CA2004/000473

International filing date (day/month/year)
26.03.2004

Priority date (day/month/year)
26.03.2003

International Patent Classification (IPC) or both national classification and IPC
C08B30/20, C08B31/00, C08B35/00, C08L3/12, A61L15/60

Applicant
LE GROUPE LYSAC INC. et al.

1. ☒ The written opinion established by the International Searching Authority:
☒ is ☐ is not
considered to be a written opinion of the International Preliminary Examining Authority
2. This first report contains indications relating to the following items:
 - ☒ Box No. I Basis of the opinion
 - ☐ Box No. II Priority
 - ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - ☐ Box No. IV Lack of unity of invention
 - ☒ Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - ☐ Box No. VI Certain documents cited
 - ☐ Box No. VII Certain defects in the international application
 - ☐ Box No. VIII Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(e).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also: For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4bis. For an informal communication with the examiner, see Rule 66.6. For an additional opportunity to submit amendments, see Rule 66.4.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary report on patentability (Chapter II of the PCT) must be established according to Rule 69.2 is: 26.07.2005

Name and mailing address of the international preliminary examining authority:



European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0 Tx: 523656 epmu d
Fax: +49 89 2399 - 4465

Authorized Officer

Hoffmann, K

Telephone No. +49 89 2399-8419



**WRITTEN OPINION OF THE INTERNATIONAL
PRELIMINARY EXAMINING AUTHORITY**

International application No.
PCT/CA2004/000473

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
 - ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this opinion is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed")*:

Description, Pages

1-20 as originally filed

Claims, Numbers

1-36 received on 25.10.2004 with letter of 21.10.2004

Drawings, Sheets

1/5-5/5 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
 - ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:
 4. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 - ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:

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**Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or
industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	13-36
	No: Claims	1-12
Inventive step (IS)	Yes: Claims	
	No: Claims	1-36
Industrial applicability (IA)	Yes: Claims	1-36
	No: Claims	

2. Citations and explanations:

see separate sheet

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(SEPARATE SHEET)**

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ad item V:

- ✓ 1. The following documents are referred to in this communication:
- D1: W.-M. KULICKE ET AL.: "Swelling and Rheological Studies of Some Starch Hydrogels" STARCH-STÄRKE, vol. 41, no. 4, 1989, pages 140-146, XP009032649 WEINHEIM
- D2: EP-B-0 000 247 (STALEY MFG CO A E) 4 August 1982
- D3: EP-A-0 769 501 (UNILEVER PLC ; UNILEVER NV (NL)) 23 April 1997
- D4: GB-A-2 043 668 (FRESENIUS CHEM PHARM IND) 8 October 1980
- ✓ D5: US 6 331 619 B (A BESEMER ET AL.) 18 December 2001
- D5 is attached to this communication.

- ✓ 2. As set out in the written opinion of the International Searching Authority, D1 to D4 all disclose an absorbent material consisting of a molecular network of starch molecules, the starch molecules comprising at least 90 % (w/w) amylopectin, as defined in original claim 1.

To establish novelty the applicant has introduced two parameters into claim 1, i.e. that the absorbent material is characterized by a free swell capacity (FSC) of at least 13 g/g and a centrifuge retention capacity (CRC) of at least 10 g/g.

It is correct that these parameters, in particular the CRC, have not been determined in D1 to D4. However, it must be kept in mind that the use of a parameter may not be taken to disguise novelty.

- ✓ 3. The Examining Authority is convinced that a FSC of at least 13 g/g is a minimum requirement for a product to be usable as an absorbent. The same appears true for a CRC of at least 10 g/g.

In this connection reference is made to document D5. It discloses in claim 1 a superabsorbent polysaccharide derivative obtained by oxidation and crosslinking of a polysaccharide selected from a group which includes amylopectin. The examples of D5 refer to a crosslinked carboxymethyl potato starch. According to Table 2 all the products of Example 10 have a FSC well above of 13 g/g and most of them have a CRC of above 10.

It thus appears that the two parameters of claim 1 are not really limiting the

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claimed subject-matter but only refer to self-evident properties which are met by most products to be used as absorbent material. Therefore the objection with respect to lack of novelty is maintained.

Novelty could be acknowledged only if the applicant demonstrates that the products of D1 to D4 do not have a FSC and a CRC according to claim 1.

4. With respect to inventive step D5 discloses superabsorbents prepared from amylopectin (claim 1) and a process for preparing them (claim 5, examples). The examples demonstrate that superabsorbents usually have a FSC and a CRC according to present claim 1. The skilled person will apply the teaching of the examples of D5 without the ambit of inventive skill in order to prepare superabsorbents of amylopectin having the required FSC and CRC values. Products according to claim 25 ff. and their uses are disclosed in column 4, lines 60 to column 5, line 2 of D5.

It thus appears that the subject-matter of claims 1 to 36 lacks presence of inventive step in view of the disclosure of D5.